Reviewer’s report

Title: Association of the sense of coherence with physical and psychosocial health in the rehabilitation of osteoarthritis of the hip and knee: a prospective cohort study.

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Reviewer: William S Shaw

Reviewer’s report:

Manuscript Review: BMC Musculoskel Dis 1/18/2013

“Association of the sense of coherence with physical and psychosocial health in the rehabilitation of osteoarthritis of the hip and knee: a prospective cohort study”

This manuscript investigates sense of coherence (SOC-13 measure) in a sample of 355 patients with hip and knee osteoarthritis before and after entering a clinical rehabilitation program. The authors’ primary hypothesis is that a high level of SOC should result in greater benefits from a rehabilitation program in terms of physical function and health status. The primary finding was that SOC was associated with greater improvements in mental health status but not physical health status. The authors conclude only partial support for Antonovsky’s Sense of Coherence model in arthritis rehabilitation.

Understanding psychological processes that underlie the benefits of pain rehabilitation is an important research topic and one that is relevant to the BMC MSD journal. The authors have chosen to test Antonovsky’s Sense of Coherence model in arthritis rehabilitation by correlating it with rehabilitation outcomes. Although the study lacks a control group (which would provide a more rigorous test of SOC interactions with treatment outcomes), the study methodology is otherwise suitable for assessing the predictive validity of the SOC measure.

Detailed comments follow:

Major Compulsory Revisions:

(1) Abstract/Background: An additional sentence is needed to provide a stronger clinical implication for the study. Why is it important to know whether SOC is related to rehabilitation outcomes?

(2) Background (page 5, paragraph 1): Although this paragraph provides a good summary of the Antonovsky Sense of Coherence model, how might this model influence the way rehabilitation programs are developed or delivered? Without this explanation, the evaluation of the SOC in this study measure seems a bit arbitrary. What was the compelling reason to collect these data and perform these analyses?

(3) Background (page 5): A paragraph should be added to summarize the existing empirical support for the Sense of Coherence model in other disease
categories and clinical settings. Although some existing studies are reviewed in the Discussion, the Background section should provide some indication of level of support.

(4) Methods (page 6, Intervention): The rehabilitation program is well described, but can anything be said about the potential relevance of SOC with regard to program content?

(5) Results (page 11, paragraph 4): Given the very high correlation of the SOC-13 with the mental component score from the SF-36, it begs the question of whether these two measures are actually measuring unique traits or whether SOC is not distinguishable from a general measure of health-related psychological distress. There should be some Discussion of the potential overlap in these two scale measures (and their underlying construct domains).

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests